Haynes, R. F. 1963. Notes on Lepidoptera in the West of Ireland. *The Irish Naturalists' Journal* 14: 175.

Haynes, R. F. 1966. Lepidoptera of the Killarney District. Unpublished.

Hickin, N. (ed. Lavery T. A.) 1992. The Butterflies of Ireland. A Field Guide. Robert Rinehart Publishers.

Howarth, T. G. 1984. Colour Identification Guide to the Butterflies of the British Isles. Viking. Huggins, H. C. 1951. Thecla betulae in Ireland. The Entomologist 84: 69.

Kane, W. F. de v. 1893. Catalogue of the Lepidoptera of Ireland. *The Entomologist* **26**: 69–73, 117–121, 157–159, 187–190, 212–215, 240–244, 269–273.

Lavery, J. W. & O'Sullivan, M. J. 1986. Quest for T. betulae (Brown Hairstreak) in Ireland. Bulletin Amateur Entomologists' Society 45: 190.

McCutcheon, W. I. 1965. *Thecla betulae*, Brown Hairstreak Butterfly in Co. Tipperary. *The Irish Naturalists' Journal* **15** (2): 55.

Mathew, G. F. 1865. *Thecla betulae* near Cork. *The Entomologist's Monthly Magazine* 1: 116. Meyrick, E. 1928. *Revised Handbook of British Lepidoptera*. Watkins & Doncaster.

Moffat, C. B. 1895. Thecla betulae in Co. Wexford. The Irish Naturalist 4: 78.

Moffat, C. B. 1918. New Locality for Thecla betulae. The Irish Naturalist 27: 172.

Nash, D. W. & Hardiman, D. M. 1999. The brown hairstreak *Thecla betulae* L. (Lepidoptera) in North Tipperary (H10). *The Irish Naturalists' Journal* **26** (7/8): 277–278.

Nash, R. 1975. The butterflies of Ireland. *Proceedings & Transactions of The British Entomological and Natural History Society* **7**(3): 69–73.

Newman, L. H. & Mansell, E. 1968. *The Complete British Butterflies in Colour*. Ebury Press. Ni Leamhna, E. 1978. *Provisional Atlas of Butterflies in Ireland*. An Foras Forbatha.

O'Sullivan, M. J. 1990. Burren Lepidoptera. *Bulletin Amateur Entomologists' Society* **49**: 37–45. Salter, M. 1999. An extension of the Irish range of the brown hairstreak *Thecla betulae* (L.) (Lepidoptera: Lycaenidae). *The Irish Naturalists' Journal* **26** (5/6): 203.

# ADVICE ON THE REPORTING, LICENSING AND IDENTIFICATION OF ALIEN, OR EXOTIC, INVERTEBRATE PLANT PESTS

R. J. C. CANNON, P. W. BARTLETT AND R. J. TUPPEN

Central Science Laboratory, MAFF, Sand Hutton, York, YO41 1LZ

### NOTIFICATION TO MAFF OF ALIEN INVERTEBRATE PLANT PESTS

Plant Health legislation is aimed at preventing the introduction, establishment and spread of alien plant pests. Findings of such harmful organisms must be reported (address 1, below), in order to ensure that the risks are properly assessed, and managed accordingly. Suspicion that an invertebrate is alien is sufficient to require notification. Although most exotic plant pests are intercepted on imported plants and plant material, some are occasionally found in outdoor situations. The assistance of entomologists and the general public, in bringing such pests to the attention of the Plant Health authorities, plays a vital role in preventing the establishment and spread of harmful species originating from other countries.

A large number of invertebrate plant pests (insects, mites and nematodes) are listed in the Annexes of the European Community (EC) Plant Health Directive (2000/29/EC). However, other 'unlisted' organisms, which may be of plant health significance, are also regularly intercepted in the UK. One role of the Plant Health authorities is to determine the risks posed by such organisms, and where necessary to take action to contain and eradicate them.

Invertebrates arrive in the UK both by natural means and with human assistance. *The Plant Health (Great Britain) Order 1993* (Anon., 1993a) and the *Plant Health (Forestry) (Great Britain) Order 1993* (Anon., 1993b) prohibit the importation of

any plant pest which "is not normally present in Great Britain", and require notification of the presence, or suspected presence, of such alien plant pests. In practice this is taken to mean the reporting to the appropriate authorities of any invertebrate which is not known to be established in the UK, excluding occasional migrants. Rapid notification is necessary and this should not await final identification.

## LICENSING REQUIREMENTS FOR THE IMPORTATION AND HOLDING OF PLANT PESTS

A licence is required to keep any live invertebrate which is not normally present in Great Britain and is considered to be a risk to plant health. Licences authorise the importation and movement of plant pests for scientific purposes. The role of the licensing authority is to assess whether or not any risk exists, and if so, to determine to what extent it requires quarantine containment. Guidance on the importation of organisms is available from MAFF (address 1, below) (Anon., 1997).

Most other countries have similar legislation, so it is recommended that before knowingly exporting any organism, the authorities of the importing country should be consulted. The UK embassy or consulate should usually be able to give general guidance on the rules and on suitable contacts. For plant pests being moved to another EU member state, Plant Health Division (address 1, below), MAFF, should be consulted to obtain a "letter of authority" to accompany the consignment.

## DISPATCH AND IDENTIFICATION OF SUSPECT ORGANISMS

Suspect organisms may be sent to the Plant Pest & Disease Diagnosis Section, Central Science Laboratory (address 2, below), for identification. No charges are levied for the identification of suspect plant pests which are not known to be established in the UK. Samples should be labelled, and details documenting where, when and how the organism was discovered, included. Live immature specimens should be sent in a plastic tube with sufficient host material to enable survival during the journey. Adults and active immature specimens are best sent in clear plastic tubes, so that contents can be viewed before removal. For invertebrates larger than 2 mm, a few holes should be punctured in the lid. Samples should be packaged in strong cardboard boxes, and posted as soon as possible after collection, using the first class mail.

#### REFERENCES

Anon. (1993a). *The Plant Health (Great Britain) Order 1993*. Statutory Instrument No. 1320. London: HMSO.

Anon. (1993b). Plant Health (Forestry) (GB) Order 1993. Statutory Instrument No. 1283. London: HMSO.

Anon. (1997). Explanatory leaflet on Importing Invertebrates. Ministry of Agriculture, Fisheries and Food. Leaflet PHI 8 (3/00) 6 pp.

#### ENOUIRIES AND NOTIFICATIONS CAN BE ADDRESSED TO PLANT HEALTH AT:

- 1. MAFF, Foss House, Peasholme Green, York, YO1 7PX, tel: 01904 455174.
- 2. Central Science Laboratory, Sand Hutton, York YO41 1LZ, tel: 01904 462224 (licensing) 462214 (identification).
- 3. Forestry Commission, 231 Corstophine Road, Edinburgh, EH12 7AT, tel: 0131 314 6401.
- Scottish Agricultural Science Agency (SASA), East Craigs, Edinburgh, EH12 8NJ, tel: 0131 244 8863.
- 5. Department of Agriculture and Rural Development (DARD), Dundonald House, Upper Newtonards Road, Belfast, BT4 3SB, tel: 02890 524188.